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Clitics and Particles*

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Abstract

Typological and theoretical speculations about clitics require that clitic be adequately distinguished from inflectional affix on the one side and from independent word on the other. The first of these tasks has been attended to, but the second has been slighted, with the result that many items labeled as 'particles' have been treated as clitics.

After some remarks on what 'tests' are in linguistics, a series of tests is provided for distinguishing clitics from independent words. On the basis of these, it is concluded that most of the 'particles' in the literature are simply words, and from this conclusion it is argued that treating words with idiosyncratic distributions as acategorial 'particles' is wrong.

The relevance of various cases of 'particles'--in German, Chrau, Hidatsa, and Welsh--to theoretical proposals about special clitics is then considered. The examples include particles that are really independent words, particles that are really inflectional affixes, and particles that are really independent words with simple clitic variants.

Finally, a true class of (discourse) particles is delineated--a grammatical category having little to do with most of the particles in the literature.

0. Initial remarks

The recent flurry of work on clitics--especially the description of clitic systems in various languages and the examination of the status of clitics in a general theory of language structure--has made the task of distinguishing clitics from (on the one hand) affixes and (on the other) independent words an especially pressing piece of business for linguists.

One of the main reasons linguists are interested in the clitic systems of individual languages is that they hope to use data from a variety of languages to formulate inductive generalizations about language, in particular inductive generalizations that might be useful in typological studies. Obviously, if such generalizations are to have any value, the phenomena on which they are based must involve cliticization and not ordinary morphology or ordinary syntax.

The same is true for investigations in which theory construction is the chief goal: there is not much point in proposing that cliticization is an ordinary syntactic operation (describable by the same formalism as ordinary syntactic rules and capable of interacting with them), or that it is a type of affixation (describable by the same formalism as ordinary

inflectional affixation and interacting with other morphological rules but not with ordinary syntactic rules), or that it is a special type of rule (subject to its own formal constraints and interacting with other types so as to operate on the output of syntactic rules as a group and to provide the input for morphological rules as a group), so long as the evidence for this theoretical position involves linguistic units whose status as affixes, clitics, or words is unclear.

A few remarks on recent history are in order here. My early investigation of clitics (Zwicky 1977b) was pretheoretical in nature and did not address these issues seriously. Klavans 1982 took the position that clitics are to be distinguished in linguistic theory from affixes and words (so that clitic is a theoretical construct and not merely a useful pretheoretical cover term), but she supplied little in the way of tests to distinguish clitics from other units. Given what I said above, such tests are very important, if the theoretical enterprise is to advance. Zwicky and Pullum 1983a was an attempt to pull together a list of tests for one side of the clitichood question, the differentiation of clitics from affixes.

There is, unfortunately, no comparable summary treatment of the other side of the question, the differentiation of clitics from independent words. Certainly the matter isn't clear; language descriptions abound with references to 'particles' whose classification as clitics or words or something else is not at all obvious. As it happens, the recent literature on clitics is very much inclined to assume that anything labelled as a 'particle' is a clitic, so that a basic unclarity is carried through from the original language descriptions (where these fundamental conceptual distinctions are not the focus) to general surveys like Zwicky 1977b and to theoretical proposals and typological speculations like those in Kaisse 1982 (in this context the conceptual distinctions are crucial).

My purposes in this article are, first, to remark on what is to be meant by test in contexts like this one; second, to provide a tentative list of tests that might be used in an attempt to distinguish clitics from independent words; third, to remark that on these tests most of the things that have been labelled 'particles' are not clitics, but rather separate words, or inflectional affixes, or separate words with clitic variants; and finally, to point an extra moral, namely that (so far as I can see) 'particle' is a pretheoretical notion that has no translation into a theoretical construct of linguistics and must be eliminated in favor of such constructs.

1. 'Tests' in linguistics

It would be easy to mistake the nature of familiar tests for membership in a syntactic category, application of a particular syntactic transformation, classification as a word or affix, and the like. The temptation is to see these tests as necessary and sufficient conditions for the applicability of a theoretical term, that is, as definitions of the term. But what is normally intended when such tests are appealed to is more analogous to medical diagnosis than to operations using an axiomatic system. The tests point to characteristic symptoms of a linguistic state

of affairs, not to invariant concomitants of it.[1]

Thus, the tests listed by Zwicky and Pullum 1983a ('clitics can exhibit a low degree of selection with respect to their hosts, while affixes exhibit a high degree of selection with respect to their stems', 'arbitrary gaps in the set of combinations are more characteristic of affixed words than clitic groups', and so on) are mostly stated in terms of tendencies, and the inferences they suggest work in one direction only: if you're looking at an affix, it probably exhibits a high degree of selection; if there are arbitrary gaps in the set of combinations, you're probably looking at an affix. The tests are useful (when they are) because they work in most clear cases--indubitable affixes usually do exhibit a high degree of selection with respect to their stems (and so do some, but not all, indubitable clitics), and there are rarely arbitrary gaps in the set of indubitable clitic groups. However, as in medical diagnosis, interfering factors can cause even clear cases not to exhibit some symptom, and a particular symptom might result from some condition other than the one at issue.

Note that a test can be useful even when its basis is poorly understood. Sometimes, of course, tests follow from theoretical assumptions, but their utility is independent of these assumptions. To see this, consider the two tests in Zwicky and Pullum 1983a that are stated absolutely and bidirectionally: 'syntactic rules can affect affixed words, but cannot affict clitic groups' and 'clitics can attach to material already containing clitics, but affixes cannot'. These two tests follow from the theoretical assumption that no syntactic operations (including those of government and agreement) can follow cliticization operations, but even those who do not share this assumption are entitled to use in their argumentation the fact that a word-like unit affected by a syntactic operation is usually (if not necessarily) an affixed word, and also the fact that an affix-like unit attached to material already containing a clitic is usually (if not necessarily) itself a clitic.

Wherever possible, of course, we should seek a rationale for tests (and I attempt to do this for the tests in the following section), but on occasion we must proceed in a state of imperfect understanding about why the tests work as they do.

2. Distinguishing clitics and words

I now turn to a series of pretheoretical and theoretical observations about affixes, clitics, words, and phrases, all leading to tests that might, in favorable circumstances, distinguish between clitics and words. The tests all depend on the general observations that when contrasted with independent words, clitics have some of the properties of affixes (especially inflectional affixes), and that when contrasted with clitics, words have some of the properties of syntactic phrases.

2.1. Phonological tests

The first relevant observation about clitics is that they form a

phonological unit with an independent word.[2] However, some non-clitic words also form phonological units with words adjacent to them: English prepositions with the noun phrases following them, for instance. The difference between the clitic + word and word + word cases is the difference between phonological words and phonological phrases.

2.1.1. Internal/external sandhi

What the foregoing means is, at least, that phonological rules specifically of 'internal sandhi' apply only within phonological words, whereas phonological rules specifically of 'external sandhi' apply only between phonological words and not within them. Consequently, an element affected by or conditioning a sandhi rule otherwise known to be internal ought to be a clitic rather than an independent word. And an element affected by or conditioning a sandhi rule otherwise known to be external ought to be an independent word rather than a clitic.

2.1.2. Word/phrase domains in prosodic phonology

Rules of sandhi affect segmental features. But rules of prosodic phonology--rules assigning accent, tone, or length--can also be sensitive to the distinction between phonological words and phonological phrases, in that the domain within which a prosodic feature is distributed can be either the phonological word or the phonological phrase (or some other prosodic unit, like the syllable). Consequently, if an element counts as belonging to a phonological word for the purposes of accent, tone, or length assignment, then it ought to be a clitic rather than a word on its own. And if an element counts as belonging to a phonological phrase for these purposes, it ought to be an independent word rather than a clitic.

2.1.3. Word/phrase domains in segmental phonology

Finally, there are phonological rules--rules of vowel harmony are familiar examples--which affect segmental features but which nevertheless are 'prosodic' in character, since their domains of applicability are prosodic units. If an element counts as belonging to a phonological word for the purposes of such rules, then it ought to be a clitic rather than a word on its own. And if an element counts as belonging to a phonological phrase for these purposes, it ought to be an independent word rather than a clitic.

2.2. An accentual test

Clitics are accentually dependent, while full words are accentually independent. That is, an element that does not bear an accent of its own is probably a clitic, whereas an element that can bear the accent in its phrase or sentence is almost surely a word. (In a few cases, analysts have opted for an ad hoc labeling of certain items, which would otherwise have been classified as clitics, on the grounds that they are not necessarily stressless; so Speiser 1941: 166-7 introduces the term associative and

Derbyshire 1979: 35 calls on the ubiquitous particle.)

This accentual test is probably the most popular rule-of-thumb for distinguishing clitics from independent words, but it is a most unreliable test and should never, I think, be used as the sole, or even major, criterion for a classification, though it can support a classification established on other criteria. There are two problems with the accentual test, one minor and one major. The minor problem is that some languages do permit clitics to be accented in certain circumstances; Klavans 1982: sec. 5 surveys cases in which clitics get accent through the operation of general accentual rules or for emphasis or contrast. The major problem is that many clearly independent words, like the prepositions, determiners, and auxiliary verbs of English, normally occur without phrasal accent (such words are called leaners in Zwicky 1982).

2.3. Tests using similarities between clitics and inflectional affixes

In contrast to independent words, clitics are affix-like; indeed, they resemble inflectional affixes. At least six tests exploit this difference.

2.3.1. Binding

We expect bound elements to be affixes, free elements to constitute independent words. Correspondingly, if we are trying to decide whether some element is a clitic or a word: If it is bound it ought to be a clitic, if free an independent word.

2.3.2. Closure

Typically, certain inflectional affixes 'close off' words to further affixation. Correspondingly, an element that closes off combinations to affixation, or indeed to cliticization, ought to be a clitic rather than an independent word.

2.3.3. Construction

Inflectional affixes combine with stems or full words, whereas words combine with other words or with phrases. Consequently, we expect that an element whose distribution is correctly stated in terms of its ability to combine with single words is a clitic, and also that an element whose distribution is correcty stated in terms of its ability to combine with (potentially) multi-word phrases is a full word. The first of these expectations is strongly supported, but the second is more complex, because some indubitable clitics do combine with multi-word phrases (in the clearest cases, the items in question are clitics on all the relevant phonological and accentual tests).

2.3.4. Ordering

Alternative orders of morphemes within a word are associated with differences in cognitive meaning, while alternative orders of words within phrases are commonplace (they are 'stylistic', conveying the same cognitive meaning). Consequently, an element that is strictly ordered with respect to adjacent morphemes is almost surely a clitic (or an affix), while an element exhibiting free order with respect to adjacent words is certainly an independent word. Again, there is some complexity here, since clitics on occasion exhibit some freedom of order with respect to one another (this is the case for the Tagalog clitics; see Schachter and Otanes 1972: sec. 6.2), though not normally with respect to their hosts.

2.3.5. Distribution

Affixes typically have a single principle governing their distribution; English -ness combines with adjectives, -ing with verbs. Words rarely have distributions that can be described in a single principle; the combinatory possibilities for a verb like watch are numerous. Clear cases of clitics typically behave like affixes in this respect, having distributions describable by single principles like 'combines with the head verb of a clause', 'combines with the first constituent of a clause', 'combines with the first word of a clause', or 'combines with a noun phrase'. It follows that an element with a simple distribution of this sort is probably a clitic (or an affix), and that an element with a complex distribution is almost surely an independent word.

2.3.6. Complexity

Affixes are usually not morphologically complex themselves, whereas words frequently are. Clitics again behave like affixes (though Klavans has suggested in her work that inflected clitics do occur). Consequently, a morphologically complex item is probably an independent word rather than a clitic.

2.4. Syntactic tests

A word can serve as a syntactic constituent, and therefore can be subject to syntactic processes; a clitic, however, is only a proper part of a word-like construct, and should be immune to such processes. From this fact we can obtain several tests that differentiate between word + clitic combinations and word + word combinations. In what follows I will use the terminology of transformational syntax, though the tests can easily be translated into other frameworks.

2.4.1. Deletion

Proper parts of words are not subject to deletion under identity; whole words may (in the appropriate circumstances) undergo such deletions.

Proper parts of word+clitic combinations are equally immune to deletion. It follows that if either X or Y in an X+Y combination is deletable under identity, then X and Y are words; neither of them is a clitic.

(Note that I refer here only to deletion under identity. So-called free deletion is quite another matter, and items that are unquestionably clitics can be subject to a type of 'deletion' that does not involve an anaphoric linkage between the victim and some other constituent in its sentence. Zwicky and Pullum (1983b) have argued that some free deletions are simply examples of zero allomorphy, not syntactic phenomena at all, and they speculate that all such 'deletions' are really morphological. The main case they consider involves, in fact, a set of clitics--English proclitic auxiliaries, which are deletable in casual style in examples like You seen Jerry? (cf. 'V you seen Jerry?).)

2.4.2. Replacement

Proper parts of words are not subject to replacement by a pro-form under identity; whole words may (in the proper circumstances) be subject to such replacement. Proper parts of word+clitic combinations are equally immune to replacement. It follows that if either X or Y in an X+Y combination is replaceable by a pro-form, then X and Y are words; neither of them is a clitic.

2.4.3. Movement

Proper parts of words are not subject to 'movement rules', that is, they cannot serve as gaps in gap-filler relations with other constituents in a sentence. Full words may (in the appropriate circumstances) participate in such relations. Proper parts of word+clitic combinations are equally unavailable for movement. It follows that if either X or Y in an X+Y combination can be moved without the other, then X and Y are words; neither of them is a clitic.

2.5. A test derived from interface assumptions

Given the proposal that cliticization occurs in a component ordered after syntactic rules apply, it follows that a clitic group--a combination of a host word with its clitics--should not be available when syntactic rules apply (except in the case where the clitic is simply a reduced form of an independent word that makes a phrase with its host).

As a result, if a syntactic rule must mention a combination X+Y containing a 'dependent' item Y--either because X+Y is deleted under identity, because it is replaced, or because it is moved, or even because it must be mentioned as a conditioning factor in a rule affecting other constituents--we should expect that Y is an independent word, and not a clitic (or an affix). Conversely, if X+Y makes some sort of unit, but never requires mention in a syntactic rule, we should expect that Y is a clitic.

2.6. A metaconsideration

As a final, somewhat speculative, point in this enumeration of criteria distinguishing clitics from words, I suggest the following metacriterion: In the absence of clear evidence classifying an item one way or the other, assume that the item is a word (or an affix) rather than a clitic.

The implied claim here is one about the general human ability for language, that clitics are more marked than either inflectional affixes or independent syntactic units (that is, words). Since inflectional morphology is clearly more marked than syntax--there are many pretty-thoroughly-isolating languages, but no almost-totally-synthetic languages (despite the evidence of languages like Eskimo)--the consequence of this claim is that, ceteris paribus, an item whose standing is unclear is most likely to be an independent word, next most likely to be an inflectional affix, and least likely to be a clitic.

Though I take this metaconsideration seriously, in what follows I will not assume that it is a reliable guide. Nevertheless, I should point out that the argumentation of section 4 below would be a good bit shorter for anyone who assumes that cliticization is more marked than either inflectional affixation or syntactic combination.

3. Particles

The term particle is a ubiquitous one in syntax. Its most common function is to label items which, in contrast to those in established word classes of a language, have (a) peculiar semantics and (b) idiosyncratic distributions. Particle is consequently a cover term for items that do not fit easily into syntactic and semantic generalizations about the language.

On occasion--as in Bloomfield's 1917 analysis of Tagalog--the word is used to cover any lexical item not in a major word class; in Tagalog the list of such items incudes both true clitics, which Bloomfield calls 'enclitic particles', and a large number of nonclitic words. Especially in older works (like Whitney 1889 on Sanskrit) the word covers any indeclinable, or uninflectable, item; this use of the word is particularly common for languages, like Sanskrit, in which almost all words have inflected forms. A middle course is steered by those who follow Crystal (1980: 258) in distinguishing as a particle 'an invariable item with grammatical function, especially one which does not readily fit into a standard description of parts of speech'.

3.1. Properties of 'particles'

The familiar class Prt of verbal 'particles' in English--the off of send off, the up of give up--is a typical set of words that get this label because no other suitable label is available. They are, first of all, semantically peculiar: their contribution to the combinations in which they occur tends to be idiosyncratic, and in any case this contribution is not that of either of the two closest word classes in English, prepositions

and (directional) adverbs. In addition, the English 'particles' are odd on distributional grounds; they have neither the distribution of prepositions (since they occur postnominally, as in Robin gave the theory up) nor the distribution of adverbs (since they occur between a verb and its direct object, as in Robin gave up the theory).

Elsewhere in English, one might want to label some roughly adverbial words like even, only, and not as particles; similarly, the infinitive marker to is a candidate for this label. In other languages, extraordinary collections of words have been assigned to a particle category--markers of mood and sentence type, honorifics, indicators of topic and focus, case markers, tense/aspect morphemes, markers of emphasis, subordinators, coordinators, indicators of direct vs. indirect discourse, negators, vocative markers, deictics, definiteness/indefiniteness markers, classifiers, and so on. That is to say, the range of meanings for the things that have been called 'particles' in one language or another parallels exactly the range of meanings for clitics in the languages of the world, and these in turn parallel exactly the range of meanings for inflectional affixes in the world's languages. Semantically, items classified as particles are 'function', rather than 'content', items; the words most likely to be so classified are those with the least content--on the one hand, apparently meaningless concomitants of syntactic constructions like the infinitive marker to in English, and on the other, the little words like German doch and noch that are the bane of lexicographers and grammarians alike because it is so hard to specify their menaings or their functions, despite the fact that they clearly contribute something to the sentences in which they occur.

Phonologically, the things labeled as particles tend to be 'dependent', again like clitics and affixes. Some particles, like the English infinitival to, cannot occur in isolation. Most of them are normally subordinate in accent to words from other word classes, and so do not usually bear phrasal accent (here the English verbal particles, Prt, are atypical, for they are usually stressed).

This is not impressive list of general properties of the things that have been called particles. The peculiar semantics and idiosyncratic syntax of particles together make an entirely negative characterization of the set; the English 'particles' to, off, and only, for instance, share no interesting syntactic or semantic properties. The list of meanings conveyed by particles merely groups them together with affixes, clitics, and some indubitably independent words (including, in English, prepositions, determiners, and auxiliary verbs)--as function rather than content items. And their typical lack of phrasal accent merely groups them again with these other function items.

3.2. Particles as words

It should now be clear from what I have said about typical particles that they are in fact words rather than clitics.

First, they all can combine with phrases rather than words (the construction test, section 2.3.3). The English verbal particles combine

with a lexical category, V, and a phrasal category, NP, in examples like send [the astronauts] off and see [the horrid task] through. The infinitive marker combines with VPs, as in to [boldly go where no man has gone before]. The adverbial particles not, only, and even combine with all sorts of phrasal categories, as in not [because I asked you], only [with a pick-axe], and even [the bravest of us].

Some of these particles also exhibit a certain amount of freedom in word order (the ordering test, section 2.3.4). In particular, even and only modifying a phrase within a VP can occur either with its phrase or at the beginning of the VP: even saw Adeline shares one of its readings with saw even Adeline, and only took a drop shares one of its readings with took only a drop.

All of these English particles except to can occur as independent words (the binding test, section 2.3.1).

The infinitive marker to is itself subject to deletion (the deletion test, section 2.4.1)--as in to teach and (to) learn--and the material it combines with is subject both to deletion--I urged him to (have the penguin stuffed)--to replacement by a pro-form (the replacement test, section 2.4.2)--I urged him to do so. Both sets of facts indicate that the combination of to with other material does not behave like a word syntactically.

Although most of the English particles I have been discussing are accentually 'dependent', they all can bear phrasal accent (test 2.2), hence behave like independent words rather than clitics. Note examples like I don't want TO go, I will NOT eat that rat tart, and She sacrificed EVEN her kangaroo.

The phonological tests in section 2.1 above are not easy to apply to the current cases. One possibly relevant observation concerns the infinitive marker to and the rules governing the aspiration of voiceless stops in English. One context for aspiration is the beginning of a (phonological) word. If to were a proclitic rather than an independent word, then we would expect no aspiration at the beginning of perpetuate in to perpetuate. The presence of aspiration there supports other evidence that to is not a clitic.

Although my discussion in this section has concerned English entirely, corresponding evidence can be provided for noch and doch in German, the negator hindi in Tagalog, and many other examples of particles. I conclude that though there are clitics in many languages, most of the things that have been labeled as particles are in fact independent words rather than clitics.

3.3. 'Particles' and syntactic categories

Up to this point, I have been treating particle as if it were a theoretical term, parallel to word, clitic, and affix (admittedly, I have been inclined to put the word particle in quotes). But there is no reason whatsoever to think that the class of particles in any languge constitutes

a unified group of items. And there is certainly no reason to think that particles make a coherent set cross-linguistically. Particles are distinguished entirely negatively: they are the items left over when all the others have been assigned to syntactic categories, or the items that do not belong to major word classes, or the items that do not take inflectional affixes.

3.3.1. Acategorial items

One way to capture this fact is to say that particles belong to no syntactic category, that they are acategorial. This is equivalent to saying that these words are directly introduced by syntactic rules, rather than appearing as instances of lexical categories. An acategorial account of English only would introduce it via rules like the following:

NP ---> (only) Det Nom

VP ---> (only) V (NP) (NP) (PP)

PP ---> (only) Prep NP

The alternative is to assign only (and perhaps a few other particles) to a small subclass of adverbs, call it 'AdvX', introduced by rules like the following:

NP ---> (AdvX) Det Nom

NP ---> (AdvX) V (NP) (NP) (PP)

PP ---> (AdvX) Prep NP

As Pullum (1982) points out in his discussion of one English particle, the infinitive marker to, acategorial accounts have been proposed for a very large number of words in English--in Chomsky 1957 and Burt 1971 alone, for infinitival to, the conjunctions and and or; certain occurrences of the prepositions of, by, and for; the complementizer that; the auxiliary verbs do, have, and be; the expletive pronoun there; and the degree modifiers very and so--as well as for several affixes (among them, perfect -en, progressive -ing, and negative n't) and at least one clitic (possessive -'s).

3.3.2. Problems with acategoriality

Pullum (1982: 182) observes that there are two reasons to object to the availability of acategorial descriptions: 'it introduces irreducibly parochial (language-particular) elements into the syntactic rules of the language instead of assigning them to the natural repository for such parochiality, the lexicon' and 'it formalizes a distinction between words in a language [the distinction between categorial and acategorial words] for which there is absolutely no warrant in terms of the intuition of the native speaker'.

The first objection is important to anyone who wants to propose substantive universal generalizations about phrase structure rules. The second objection is that there is no psychological reality to the distinction between categorial and acategorial words. There are at least two further objections.

First, not only is there no apparent psychological reality to the distinction between categorial and acategorial words, there seems to be no grammatical reality to it, either. That is, there seem to be no grammatical generalizations that are correctly stated in terms of this distinction. I noted above that the set of particles in a language do not hang together in any grammatically interesting way; this is equivalent to saying that acategorial words form no grammatically interesting class.

Second, lumping acategorial words into a class predicts not only that there should be generalizations over this class (which I have just denied), but also that there should not be any generalizations relating individual acategorial words to other syntactic categories. Indeed, the apparent lack of such generalizations is what causes particular words to be treated acategorially. However, several such generalizations have been found: Emonds 1972 uses generalizations connecting the English verbal particles to prepositions to argue that the particles should be analyzed as (intransitive) prepositions, and Pullum 1982 uses generalizations connecting infinitival to to auxiliary verbs to argue that to should be analyzed as an auxiliary verb (admittedly a rather special and defective one). It is a feature of such works that the generalizations are by no means obvious or easy to discover. But the fact that they have been found in some cases encourages me to think that generalizations linking individual particles to syntactic categories can be found in other cases as well.

3.3.3. No acategorial words!

As a result, I propose that there are no acategorial words; that is, stated positively, every word (in every language) belongs to one of the syntactic categories provided by (universal) grammatical theory.

Clitics and inflectional affixes are acategorial, on this proposal, but every word must be assignable to a syntactic category. Still another way of stating the proposal: there are no particles--only syntactic categories, clitics, and inflectional affixes.

I should add here that in proposing this I am presuming an elaborated theory of syntactic categories. What is required, as Gazdar and Pullum (1982: 1-3, citing earlier works in a variety of theoretical frameworks) have pointed out, is both a hierarchical arrangement of subcategories within categories (so that the English infinitive marker to can be treated as a singleton subclass of the class of auxiliaries, itself a subclass of a class of verbs, itself a subclass of a class of predicators that includes both verbs and adjectives) and also the ability to refer to 'natural classes' of categories that cross-cut one another (the ability, for instance, to refer to adjectives and verbs together as a class, and also to refer to adjectives and nouns together as a class). The required theory of syntactic categories is therefore parallel in its form to the theory of distinctive features in phonology. Its most salient feature here is that

it permits reference to a large number of word classes--of all sizes from a single word to thousands, with some classes included within others, and with some classes intersecting with others.

3.3.4. An alternative

The proposal I have just made appears to run directly counter to ideas presented by Carlson (1983). In this section I will argue that the two are compatible, and in so doing I will sharpen somewhat my own proposal.

Carlson's discussion begins with the observation that in language in general 'there are two distinct types of morphemes...variously referred to as lexical vs. function morphemes, full words vs. empty words, content words vs. particles' (69). Carlson takes this distinction to be a fundamental one in linguistic theory, and argues that particle words group together with inflectional affixes, indeed with certain instances of morphological operations like reduplication, with certain clitics, with some suprasegmental marks like intonation contours, with some null elements, and even with instances of altered word order. A telling case is that of yes-no questions across languages; they are marked by particle words, by verbal inflections, by clitics, by intonation or other supra-segmental means, and by word order changes (like inversion in English)--in some languages by two or more of these in concert or in alternation.

The suggestion Carlson ultimately makes is that particle words and their ilk are in fact both meaningless and not lexical items at all. Instead, a particle or one of its kin is a mark of a syntactic combination, a concomitant of a rule that combines lexical or phrasal material; according to Carlson, the meaning apparently associated with some such items is actually a semantic operation associated with the rule.

My proposal requires only that a particle word be assigned to a syntacic category. It does not require that the particle be listed in the lexicon (assuming that the lexicon is conceived as the list of open-class items), or even that it have a meaning common to all of its occurrences. The main reason particles should belong to a syntactic category is that generalizations should be statable across classes of particles, across classes containing both particles and indubitable lexical items, and even across classes comprising occurrences of the 'same' particle introduced by different rules. For this purpose, it would be sufficient for material introduced as a concomitant of a syntactic rule to have some internal feature organization of a nonphonological sort (and indeed we wouldn't want it to have internal phonological organization, for then phonological features would be available to condition or constrain syntactic operations). This material would not have to have a 'meaning', and it certainly is not necessary that this material be a member of an open class.

For this proposal to work, we must assume a distinction similar to one that has repeatedly been suggested in transformational grammar, between an 'early' accessing of the lexicon (for open-class items) and a 'late' accessing (for function morphemes and words), though there is no need to treat the insertion of open-class items as early in derivations. What we require is a distinction between the lexicon proper--a list in which bundles of morphosyntactic features are matched with phonological content

and meaning--and a process of shape assignment, in which bundles of morphosyntactic features (associated with words or phrases) receive phonological shapes, whether as segmental material, as an operation on segmental material, or as prosodic features.

I conclude that a Carlson-style treatment of particles is indeed compatible with the claim that there are no acategorial words, so long as material introduced as an accompaniment to a syntactic rule can be internally complex.

3.4. 'Particles' and a typological generalization

I return now to the issue with which this paper began, namely the involvement of particles in general hypotheses about langauge, in particular typological generalizations. I want to treat one hypothesized generalization in particular: Kaisse's proposal (1982: 4) that 'All languages with S' clitics place those clitics in second position, after the first stressed constituent (or word) of the clause, regardless of the category of that constituent (or word).

My aim here is not to defend or attack this proposal--I am inclined to believe that the strongest form in which it can be maintained is limited to free-word-order languages, and I am not committed even to that version--but rather to point out that most of the problematic cases adduced by Kaisse are irrelevant to the hypothesis, since they do not involve clitics, but rather (i) 'particles' that turn out to be independent words, (ii) 'particles' that turn out to be affixes, or (iii) 'particles' that turn out to be simple-clitic variants of independent words (simple clitics are those, like the English auxiliary clitics 's, 'd, and so on, that serve as reduced forms occurring in the same positions as corresponding full forms--in my English example, the full forms is/has, would/had, and so on).

To elucidate Kaisse's version of Wackernagel's Law, I must first explain that S' clitics are a subtype of special clitics (clitics not partaking of the distribution of corresponding full forms) functioning as constituents of S'--that is, as modifiers of S. Special clitics marking mood, tense, and aspect are typical S' clitics, and special clitics marking subject pronouns are typical examples of S, rather than S', clitics in Kaisse's scheme.

It follows from the statement of Kaisse's generalization that any of the following would be counterexamples to it:

--S' clitics in initial position;

--S' clitics in a medial position other than 2P--for instance, in third position;

--S' clitics located with respect to the end of a clause, either in final position or in penultimate position.

Kaisse herself is careful to bring forward cases that seem to be counterexamples, or at least problematic. These include

--initial S' clitics in Welsh;

--third-position S' clitics in German;

--final S' clitics in Chrau and Kenyang (to which I can add a similar case in Hidatsa); and penultimate S' clitics in Nganhcara.

I cannot consider all of these cases here--to begin with, I lack the information I would need to judge the Kenyang case--but I can consider representative phenomena: independent words rather than clitics (German, Chrau); affixes rather than clitics (Hidatsa); and simple-clitic alternants of independent words rather than special clitics (Welsh). These are examined, in order, in the next section.

4. Items misclassified as special clitics

4.1. Independent words rather than clitics

The burden of most of the preceding discussion has been that many items that might be classified as (special) clitics are in fact just independent words.

4.1.1. German conversational particles

One case I have already alluded to: the German 'conversational particles' ja 'indeed', eben 'just', denn 'for', doch 'yet', and wohl 'indeed'. As Kaisse (1982: 9) observes, most of these particles are capable of receiving stress, a property 'more characteristic of independent grammatical words than of the special clitics'.

Several of the conversational particles can even occur in isolation, or in combination with other 'little words': doch constitutes by itself a positive answer to a negative question (Verstehst du das nicht? Doch. 'Don't you understand that? Yes, I do.'), and ja doch and nicht doch serve as emphatic positive and negative answers, respectively; wohl alone is an exclamatory 'Well then!' or a military "Aye, aye', and ja wohl and nicht wohl are an emphatic positive and an emphatic negative, respectively; eben alone is an exclamatory 'Exactly! That's right!'. If the conversational particle ja is to be identified with the answer-word ja, then it should be added to this list, and it probably should be added in any case, given its exclamatory use in examples like Ja, ist er gegangen? 'Why, has he gone?' In any event, the binding test (section 2.3.1) indicates that most of the conversational particles (denn is the conspicuous exception) are independent words rather than clitics.

It is also true that the conversational particles are by no means restricted to second position, that is, to position after the first constituent of a clause. Ja, wohl, and eben, at least, occur phrase-initially as well, in examples like Hunderte--ja Tausende 'Hundreds--indeed/even/nay thousands', Wohl zehnmal 'Indeed/easily/at least ten times', and Eben an der Stelle 'Just on that spot'. That is, the conversational particles (again with the notable exception of denn) have the distributional properties (section 2.3.5) of independent words rather than clitics.

The reason that the conversational particles appear to be problematic for Kaisse is that in main clauses, where German requires that verbs take second position, the conversational particles appear in third position:

Peter	war	ja	doch	dort.
Peter	was	indeed	yet	there

*Peter ja war doch dort.

*Peter ja doch war dort.

cf: ...weil Peter ja doch dort war
'because Peter was indeed yet there'

There is, of course, no problem if the conversational particles are adverbs of a special type. Then their privileges of occurrence are matters of syntax--interesting, but of no particular significance for generalizations about clitics.

Everything I know about the German conversational particles indicates that they are adverbs with special restrictions on their occurrence--in this respect, much like English not, though of course with rather different distributional restrictions from those on not.

4.1.2. Chrau particles

The Mon-Khmer language Chrau, as described by Thomas (1971), presents a picture of incredible diversity in its particles.

Thomas' analysis of this SVO language distinguishes nuclear slots in a clause, filled by verbs and their nominal arguments, from peripheral slots, filled primarily by various types of 'particles'. Among the particle types is a category of 'adverbs', which are by distributional definition 'words which usually follow the object, but which can freely precede the object' (81) and which have meanings comparable to those of adverbs in familiar languages. But the class of particles also includes a set of 'initial adverbials', ideophonic adjuncts to specific verbs, though located before the subject; a set of 'movable particles', of idiosyncratic distributions, which combine with a variety of constituent types; and a set of 'final particles', the most common of which is en 'already, now, finished' (Thomas, 100). The peripheral slots in a clause include several that are clearly phrasal, in particular a set of 'clause temporals' (time adverbials) and a set of 'location' elements (prepositional phrases of location).

Other particles are located at the beginning of the verb phrase constituent in Chrau. These 'preverbal particles' are adverbial in meaning, marking negation and temporal relations.

Still more types of particles occur in main clauses only. These include a set of 'initial particles', some modal in meaning (chăc 'surely, probably'), most functioning as sentence connectives (ncai 'then, after that'; te ra 'so that, as a result'); a set of 'modal particles', intervening between the clause temporal and the subject, or occurring after

the subject, and again performing both modal (dăng gal 'truly, indeed') and connective (chĕq 'so as a result, then, in that case') functions; and a collection of 'final particles' beyond those that can occur in both main and embedded clauses. These final particles mark questions of various types, imperatives of various types, emphatic assertion and denial, and bewilderment or surprise. It is these particles, mentioned in Zwicky 1977, that appear to constitute an exception to Kaisse's version of Wackernagel's Law--if they are clitics. The initial particles would also constitute straightforward exceptions--again, if they are clitics.

But there is no reason to think the final and initial particles are anything other than words, adverbs in fact.

Chrau is largely monosyllabic, and the particles all maintain their phonological integrity; there is no evidence that they coalesce with neighboring morphemes. Chrau accent is a matter of high pitch, usually on the final syllable in a sentence, and it is true that final particles like the emphatic negative nôq and the mild emphatic vu de have inherent low pitch (Thomas, 60f.). However, a number of other morphemes (di 'in order to, until', and the sentence and noun phrase coordinators) have inherent low pitch even though they are not final particles--and, in any case, usually neutral or de-emphasized words in a sentence can receive high pitch for special emphasis. Phonologically, then, there is no compelling reason to classify the Chrau particles as clitics.

It is also true that none of the particles seems to be able to occur in isolation. However, from Thomas' exposition it appears that only nouns and verbs can occur in isolation, so that free occurrence is not a good litmus for words vs. clitics in Chrau.

At least two facts favor the classification of the Chrau particles as independent words. The first of these is that a number of the particles are clearly morphologically complex. The final particle vu de, for instance, is an idiomatic combination of vu 'people' and de 'possessive particle' (Thomas, 189). By the complexity criterion (section 2.3.6), we expect these particles to be words rather than clitics.

The second fact is that the distribution of the final particles cannot be described by a single principle locating them at the end of a clause. The complication is that 'Part of the clause nucleus may be repeated (echoed) after the final particle for additional semantic emphasis' (Thomas, 102). We need to say that final particles combine either with a clause, or with a clause and an independent constituent (from Thomas' examples, the echoed constituent can apparently be a noun phrase, a verb phrase, or the two in combination, without any final particles).

The distribution criterion (section 2.3.5) then suggests that the particles are simply words.

I conclude that absolutely nothing about the phonology or syntax of Chrau indicates that the final particles form any sort of unit with the non-particle word preceding them. Similarly, nothing indicates that the initial particles form any sort of unit with the non-particle word following them.

4.2. Affixes rather than clitics[3]

The Siouan language Hidatsa is an SOV language with a set of morphemes, indicating moods, that occur only after V in main clauses. These mood markers are differently treated by Robinett 1955 and by Matthews 1965.

Matthews' description is in the early transformational framework; it has a set of phrase structure rules (introducing eight moods via the rule S ---> P Mood), a set of transformational rules (irrelevant to the issue we are considering here), and a set of rules introducing boundaries into syntactic structures. Matthews (Appendix B.1) describes this third set of rules as demarcating 'words', but he also says that the way strings are divided into 'words' can diverge considerably from the (surface) constituent structure, so that it is clear that this third set of rules, intervening between the transformational and phonological components, comprises what have come to be known as readjustment rules, creating 'phonological words' rather than the words of ordinary morphology. That is, Matthews is proposing that the mood markers are clitics, syntactically positioned at the end of an S and later readjusted to form phonological words with the V that precedes them. These are special clitics (they have no full forms in this position, or any other position), and from their meaning, S' clitics.

Robinett's analysis, on the other hand, is framed in terms of position-classes of affix morphemes. For her, the mood markers belong uncomplicatedly to a class of inflectional affixes including also such non-mood morphemes as wa 'as, when, at' and hiri 'because'.

Now Matthews' analysis, in which mood markers like Quotative wareac, Report rahe, and Emphatic ski are S' clitics located clause-finally, clearly runs against Kaisse's version of Wackernagel's Law, while Robinett's analysis of Hidatsa is consistent with Kaisse's proposal (the location of inflectional affixes has nothing to do with the placement of S' clitics). But which of the two is the right analysis of Hidatsa?

Consider the criteria that Zwicky and Pullum (1983a) provide to distinguish clitics from inflectional affixes, and the criteria they cite from other authors (Carstairs 1981 and Muysken 1981). Most of these criteria do not apply to the Hidatsa case, at least given what I know about the language. But not all are beside the point. Carstairs' third criterion--that inflectional affixes are 'members of a relatively small closed system, one of whose members must always appear at the relevant place in structure' (4)--fits the Hidatsa case perfectly, since the mood markers make a small (seven- or eight-member[4]) closed class, one of whose members must appear at a particular point in structure, namely at the end of every main clause. Zwicky and Pullum's first criterion--that 'clitics can exhibit a low degree of selection with respect to their hosts, while affixes exhibit a high degree of selection with respect to their stems' (503)--is consistent with an affix analysis, since the mood markers occur only after verbs; but since verbal clitics are common in the languages of the world, not much weight can be placed on this test.

The most striking evidence in favor of the affix analysis comes from Zwicky and Pullum's third criteion: 'Morphophonological idiosyncrasies are

more characteristic of affixed words than of clitic words' (504). There are at least three types of morphophonological irregularities associated with the mood markers.

First, the Optative and Imperative markers 'Both combine with a preceding number morpheme...into the phonemic shape aara...Otherwise, after a nonhigh vowel that is not preceded by a nonhigh vowel,...[they] have the shapes h and ka, respectively; elsewhere their shapes are ah and aka, respectively (Matthews, 108). These morphophonemic conflations and alternations have no obvious parallel elsewhere within the language.

Second, the Report mood marker idiosyncratically fails to undergo (Matthews, 287) a morphophonemic rule raising e to i in morpheme-final position.

Third, at least one mood marker conditions morphophonemically irregular behavior in the stem to which it is attached: 'Under certain not-yet-understood conditions, a stem will move its stress to the final vowel when it is immediately followed by the Quotative morpheme' (Matthews, 286).

Finally, the phonological shape of at least one of the mood markers indicates that it is an affix rather than a clitic. Most of the mood markers have quite ordinary shapes, like Indefinite toak and Period c, but one, Question, has a peculiar phonological realization: as a glottal interruption of an immediately preceding vowel (Matthews, 101).

Now morphophonological processes like ablaut, umlaut, consonant changes, reduplication, accent shifts and tone alterations are fairly common as the phonological exponents of inflectional or derivational formations in morphology. Sometimes the processes cooccur with affixes (e.g. German umlaut with plurals in -er, as in Blaetter, from Blatt 'leaf'); sometimes they are the sole phonological exponent of a formation (e.g. German umlaut as the sole mark of plurality, as in Brueder, from Bruder 'brother'). Sometimes the proceses affect only a subtype of a formation (e.g. German umlaut in general, given that many plurals, like Frauen 'women', do not involve umlaut even though their noun stems have umlautable vowels); sometimes they occur across the board (e.g. the Tagalog 'contemplated-aspect' form of a verb, marked only and always by reduplication, as in makikita 'will see', from makita 'see' (Schachter and Otanes 1972: 363)). Parallel phenomena involving clitics or independent words are at least very rare, if not unexampled. Given that the Hidatsa Question morpheme is realized as a morphophonological process, it is most unlikely to be a clitic.

(Notice that here I am using a test to distinguish clitics from affixes that Zwicky and Pullum do not cite: Morphophonological processes normally function parallel to affixes rather than to clitics (or independent words).)

On balance, every criterion I have mentioned shows that the Hidatsa mood markers are inflectional affixes (after the fashion of Robinett's analysis) rather than clitics (in the spirit of Matthews' analysis).

4.3. Simple clitics rather than special clitics

Welsh presents a situation that, at first glance, seems to involve S' clitics in clause-initial position. The particles at issue in this VSO language include at least the affirmative particles y(r), fe, and mi; the interrogative particles a and ai; the relative particle a; and the negative particles ni(d), na(d), and nac. From their functions, it is clear that if these particles are special clitics, they are S' clitics. The question is whether they are special clitics at all.

To explore this question, I must first sketch the syntactic properties of the Welsh particles. The particle y(r)[5] will serve as an illustration. It combines with a clause whose main verb is a form of bod 'to be':

Yr	oedd	Jac	yma	'Jack was here'
PRT	was	Jack	here	

Compare A oedd Jac yma? 'Was Jack here?' and Nid oedd Jac yma 'Jack wasn't here'.

The other afirmative particles, fe and mi, combine with clauses having main verbs other than bod, and they are optional, whereas y(r) is obligatory: *Oedd Jac yma, but both Mi ganodd Jac and Canodd Jac 'Jack sang'.

Y(r) does not, however, combine with clauses that have a (fronted) topicalized constituent; the particle is instead in complementary distribution with a topicalized constituent: Y bachgen oedd yma 'It was the boy who was here', Yma oedd y bachgen 'It was here that the boy was', but *Yr y bachgen oedd yma and *Y bachgen yr oedd yma. The interrogative and negative particles are not so restricted; compare Ai Jac oedd yma? 'Was it Jack who was here?' and Nid Jac oedd yma 'It wasn't Jack who was here' with Jac Oedd yma. Note also that y(r) does not cooccur with a/ai or ni(d).

For sentences with main verb bod, then, there are six things that can precede the verb: AFF, Q, NEG, TOP, Q TOP, and NEG TOP, where 'AFF' stands for the affirmative particle, 'Q' for the interrogative particle, 'NEG' for the negative particle, and 'TOP' for a topicalized constituent. A straightforward analysis of these facts would posit a Comp position preceding S, with two constituents in Comp:

$$\left(\begin{Bmatrix} Q \\ NEG \end{Bmatrix} \right) \quad \begin{Bmatrix} AFF \\ TOP \end{Bmatrix}$$

(A transformational treatment would get the effect of complementary distribution between AFF and TOP by moving a topicalized constituent so as to replace AFF, but the details of how the positions in Comp get filled need not concern us here.) In this analysis, AFF has the allomorphs y and yr (depending on whether the following verb begins with a consonant or a vowel) when it is S'-initial, and a zero allomorph otherwise.

Such a straightforward analysis of the major Welsh facts is not possible if AFF is a special clitic, and if in addition the cliticization

component is to follow all syntactic operations; a clitic element AFF would not be available in the syntactic component. Similar remarks hold for Q and NEG, and indeed for the other particles I have not discussed in any detail here. We must now ask why anyone should suggest that the Welsh particles are clitics, rather than independent words.

The first piece of evidence suggesting a clitic analysis is the restricted distribution of particles. But I have now amply illustrated the fact that items with restricted distributions are not necessarliy clitics.

The second piece of evidence is that the particles are usually unaccented. Ni(d), fe, and mi, however, are easily accented for emphasis. And, in any case, the accentual criterion is one of the least reliable, as I pointed out in section 2.2.

What looks like the really conclusive piece of evidence comes from the phonological properties of AFF, NEG, and Q in colloquial Welsh speech.[6] Preceding forms of the verb bod (which are always vowel-initial), AFF and NEG are phonologically reduced and attached to the verb. Yr oedd Jac yma pronounced with a initial schwa is distinctly bookish; the colloquial version is 'R oedd Jac yma, in which the first phonological word is /royð/. Nid oedd Jac yma pronounced with a full form nid is emphatically negative; the unemphatic colloquial version is 'D oedd Jac yma, in which the first phonological word is /doyð/. In the same context, Q is simply absent. A oedd Jac yma? is distinctly bookish; the colloquial version is just Oedd Jac yma?, with rising final accent indicating its interrogative character.

Moreover, preceding verbs other than bod, Q and NEG are usually not realized as separate elements at all in colloquial Welsh. Instead, Q is manifested as a morphophonological rule, the 'soft mutation', affecting certain segments at the beginning of a verb following Q, and as a concomitant rising intonation on the sentence as a whole. And NEG may be realized via another set of morphophonological alterations ('soft mutation' of some consonants, 'aspirate mutation' of others) affecting the first segment of the verb following it, in combination with a negative marker ddim or mo later in the sentence. The colloquial version of A ganodd ef? 'Did he sing?' (cf. affirmative Canodd ef 'He sang') is Ganodd ef?, and the colloquial version of Ni chanodd ef ddim 'He didn't sing' is Chanodd ef ddim.

Both the facts about the particles preceding forms of bod and the facts about the particles preceding other verbs suggest a high degree of integration between the particles and the verb forms that follow them; indeed, the particles seem transparently to be clitics. (For at least some speakers of modern Welsh, one might even want to analyze some of the mutated verb forms as inflectional forms.)

For the many speakers who have full and reduced forms of the particles as formal/bookish and informal/colloquial veriants, it is clear that the reduced forms (AFF /r/, NEG /d/) are clitics. But they are simple clitics, occurring in the same position as the corresponding full forms.

The zero variants of Q and NEG can then be analyzed as zero allomorphs of simple clitics, an analysis that is especially attractive in light of

the fact that the mutations appearing when there is no overt manifestation of Q or NEG are exactly those that occur with a or ni(d) is present: (A) ganodd ef?, (Ni) chanodd ef.

I conclude that the Welsh 'particles' are independent words (adverbs, presumably, though of a small and distributionally restricted class) with simple clitic variants.

5. A real class of particles

Despite all the cold water I have thrown on the notion of particle in the sections above, there is a grammatically significant class of words that have often been labeled 'particles'--namely the 'discourse particles', or 'interjections', as surveyed most recently for English by James (1974), Goldberg (1980), and Schourup (1983).

The English discourse particles include (certain instances of) well, hey, ok, oh, yes, like, y'know, no, uh, now, say, why, look, listen, and please, and perhaps others, as in the examples:

Kim will want, well/oh/like/uh/say/why, a golden penguin.
Well/hey/ok/yes/y'know/look/listen, let's go to Pismo Beach.
I'd like a pomegranate popsicle, please.

(On distributional grounds, the traditional class of exclamatory 'interjections' in English--items like ouch, boy, gosh, holy cow, wow, my goodness, dear me, and hell--should also be grouped with these particles.)

Though these items are in some sense 'little words', they are not at all like clitics. Their kinship is, instead, with vocatives, appositive relatives, and interruptive adverbials like I think, as you might have heard, and so they say.

Unlike clitics, which are prosodically dependent, discourse particles and their kin are prosodically independent. Typically, they are both accented and prosodically separated from their surrounding context.

Though discourse particles are usually monomorphemic, they can be morphologically complex (y'know is probably still complex for most current speakers of English), and certainly the constructions related to them are complex, often having quite considerable internal structure (as in the parenthetical as I ought to have realized you probably heard from Robin or the vocative all you people with both apples and oranges in your knapsacks).

Unlike clitics, which form word-like units in combination with neighboring words, discourse particles and their kin are syntactically insulated from the rest of the sentences they occur in. Typically, the internal syntax of a discourse construct has nothing to do with the syntax of the sentence around it.

Finally, a point about meaning. Clitics express a variety of meanings; in addition to clitics indicating various arguments of a verb, modality, sentence type, negation, and so on, there are some that are

really pragmatic/discourse markers, indicating the speaker's state of mind with respect to the content of what is said, the speaker's estimate of the speaker-addressee relationship, and the speaker's estimate of the role of the current sentence within a larger discourse. Discourse particles are all pragmatic/discourse markers; they never supply arguments for predicates or act as operators on propositions.

The special characteristics of discourse particles have long been recognized. Traditional grammars of many languages distinguish a class of interjections, and detailed grammars based on distributional analysis (like Fries 1952 for English) must separate discourse particles from other function words. Fries' analysis, for example, has 15 classes of function words, among them Group K (well, oh, now, and why, very frequently occurring at the beginning of 'response utterance units', and more generally at the beginning of sentences continuing conversations (101)), Group L (yes and no, distributed much as the items in Group K, but occurring as whole 'response utterances' and having a clearer meaning than the group K words (102)), Group M (look, say, and listen as 'attention-getting signals' (103)), and Group N (please occurring with request sentences, most frequently at the beginning (103)). These four classes of function words stand out very clearly against all the others, primarily because their distribution, in this very distributional grammar, is described in discourse terms, not in terms of their cooccurrence possibilities with other syntactic constituents.

I conclude that there is a place for a class of discourse particles in general grammatical theory (and, undoubtedly, a place for many subclasses in the grammars of individual languages). Discourse particles, however, make up only a small part of the great world of 'particles', and they have nothing worth mentioning in common with clitics.

Footnotes

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[1]For an extended discussion of tests in linguistics, see Zwicky 1977a. In general, the linguistic literature has not been very clear about the distinction between definitional criteria and symptoms, possibly because scholars in general are so anxious to 'define their terms' properly. Nevertheless, lists of symptoms are always useful, and in the case of terms that function as theoretical primitives, only lists of symptoms can be provided (this latter point can be seen as the main lesson of Johnson's 1977 critique of Keenan's 1976 'definition' of subject in grammatical theory).

[2]Strictly speaking, this discussion should proceed in terms of morphs rather than morphemes. An independent word can have a number of phonological forms--English /hæz həz əz əz/ representing the auxiliary verb has, for instance--and a clitic having one set of phonological forms can

alternate with an independent word having another--English clitic /z s z/ in alternation with the independent auxiliary has, for instance. Because of these phenomena, any discussion of the difference between clitics and words should be framed in terms of the classification of particular morphs, pairings of phonological form and lexical identity, and not in terms of any more abstract construct like morpheme. We will want to say that auxiliary /hɔz/ is an independent word and that auxiliary /z/ is a clitic; we will want to avoid having to classify the auxiliary morpheme has as one or the other.

[3]The material in this section will appear in somewhat different form in the International Journal of American Linguistics.

[4]Eight, according to Matthews, who counts the homophonous Optative and Imperative separately.

[5]The particle y(r) is homophonous with, and historically derived from, the definite article y(r). But it should be clear even from the few data I present here that there would be no justification for classifying the particle as a definite article in modern Welsh.

[6]The discussion that follows is based in part on my own field work on Welsh, and in part on the data in two teaching grammars--the 'bookish' grammar of Bowen and Rhys Jones (1960) and the 'colloquial' grammar of Rhys Jones (1977).

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